Advanced Math

The best review problems come from old tests. You should be able to do all the problems as well as the bonus questions. Here are the tests you should have: Functions, Exponents & Logarithms, Polynomials, and Trigonometry. Here are the quizzes you should have: Rational & Radical Equations, and Radians. If you do not have all of your tests/quizzes, I can make you another copy.

**FUNCTIONS Ch 1,3**

10 Basic Functions

Shifting the Basic Functions

Properties of Functions: Domain, Range, Inc/Dec, Local and Absolute Extrema

VA, HA, Discontinuity (removable, nonremovable), symmetry (even, odd)

Functions operations (including compositions and inverses)

Piece-wise functions

Pg 58 19, 25, 55

Pg 198 11, 19-21, 29, 35, 36, 43, 44, 53

**LOGS AND EXPONENTS Ch 11**

Log rules

Simplification of logs and exponents

Common logs

Creating exponential functions from a table

Solving exponential and log equations

Pg 750 21, 23, 27, 31-43 odd 61, 65

**POLYNOMIALS Ch 4**

Number classification

Completing the Square and Quadratic Equations

Remainder Theorem and Rational Zeros Theorem

Zeros, multiplicity, x-intercepts

Linear Factorization

Applications

Pg 268 23, 27, 29, 44, 49

**RADICAL AND RATIONAL FUNCTIONS Ch 4**

Equations

Asymptotes (VA, HA, Slant)

Intercepts

Applications

See above

**Right triangles and degrees Ch 5**

45-45-90 and 30-60-90 triangles

Trig ratios

How to find trig ratios in acute triangles

How to find trig ratios if given ratios or a point

“All Students Take Calculus” and where it comes from

Pg 337 27, 35, 43, 45, 57

**Radians Ch 6**

Why do we use radians (Be very specific)

Definition of radian

How to convert degrees to radians and vice versa

Arc length (remember, has to be in radians)

Pg 414 11, 13, 15, 17, 25